Refresh Tokens

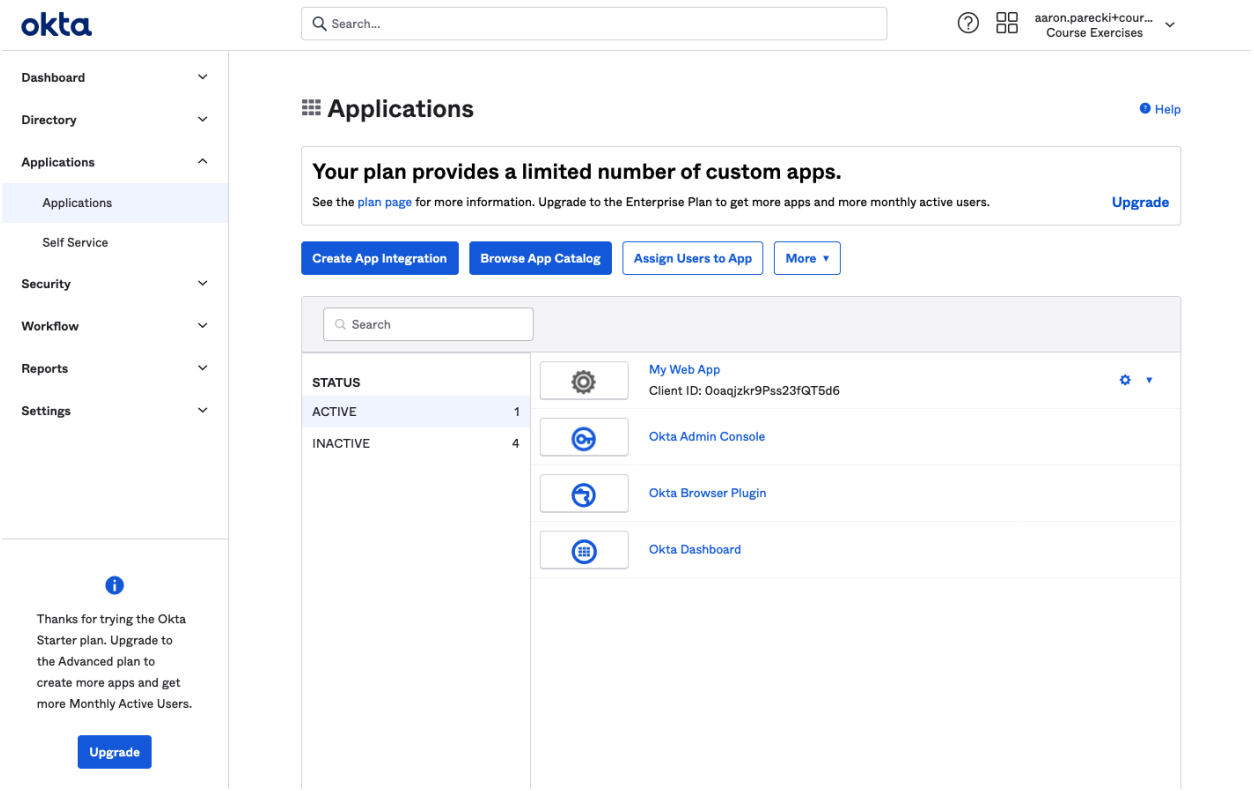
Description
In this exercise you'll learn how to obtain a refresh token and use it to get new access tokens.

Estimated Duration
15

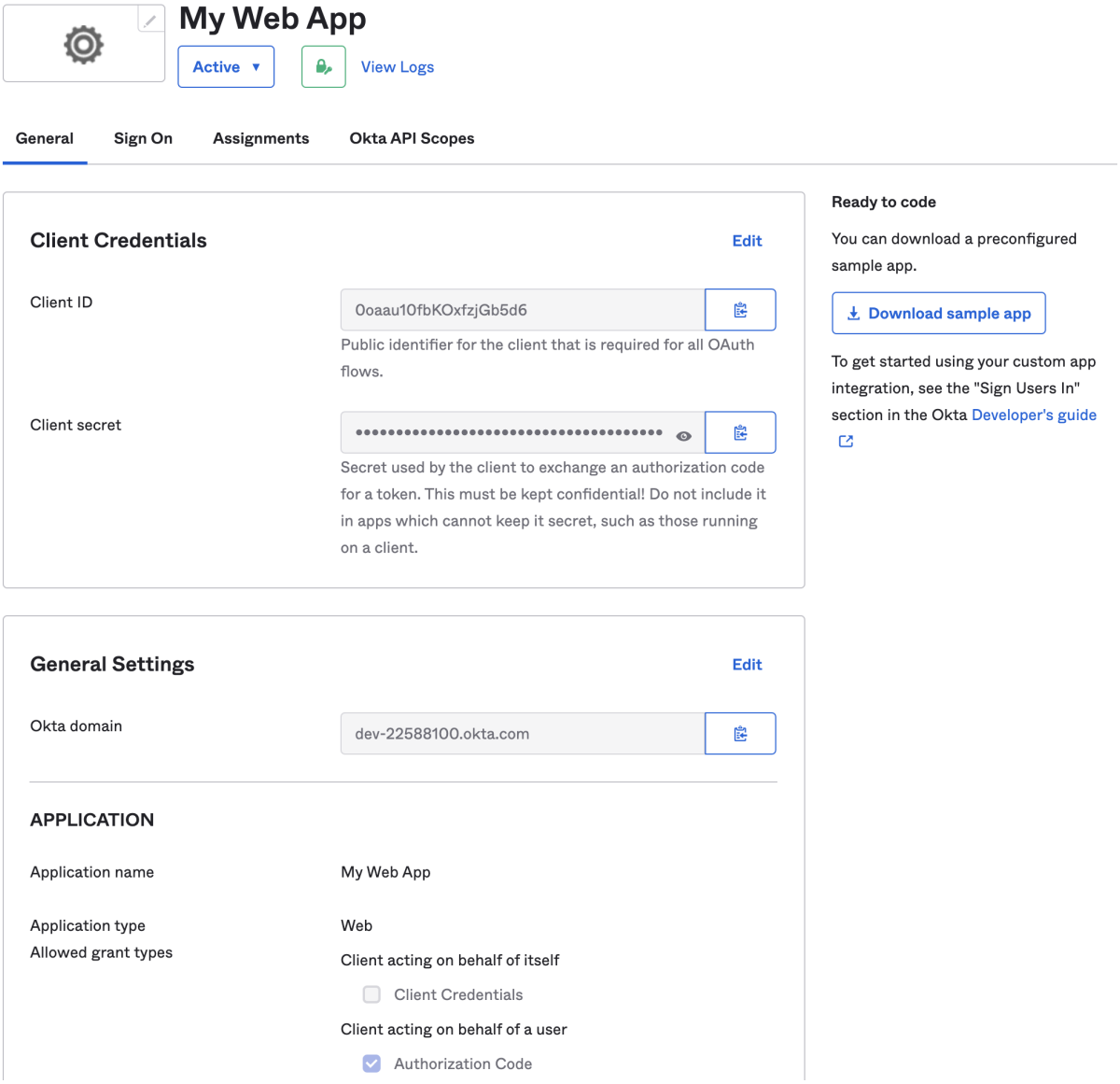
Instructions
Make sure you've completed the first Getting Started exercise, as you'll need the account and setup steps in that exercise to be complete first.

The goal of this exercise is to get a refresh token and use the refresh token to get a new access token. We will be building on the previous exercise where you used the authorization code flow to get an access token. Rather than repeat all the setup steps here, we'll assume you have already done that exercise.

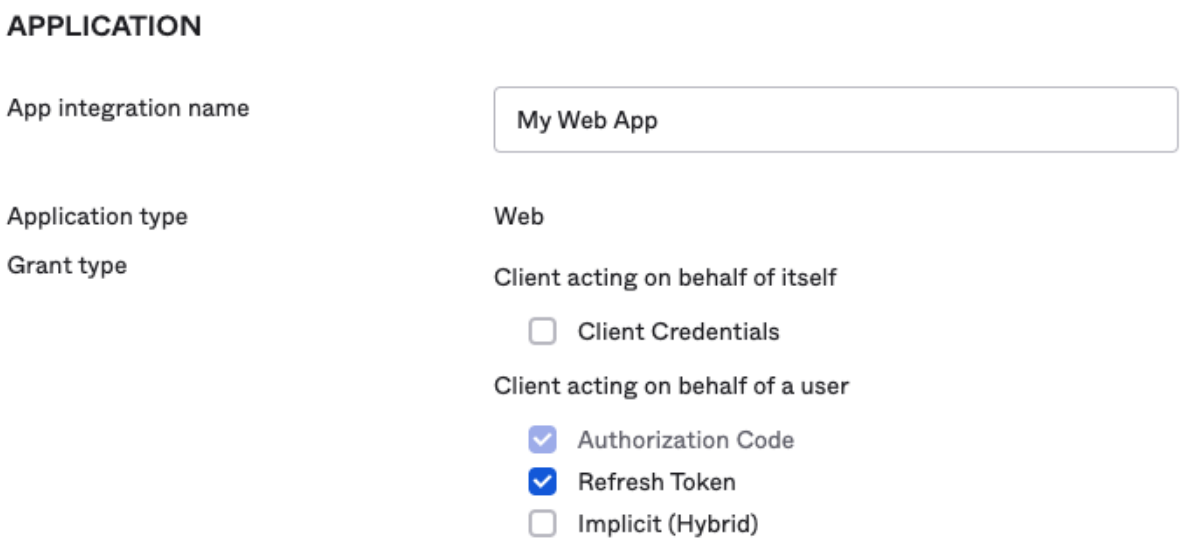
From the side menu, click **Applications** and then **Applications**.



Then select your application you created previously.



Click on **Edit** under **General Settings**, then scroll down and enable the **Refresh Token** checkbox.

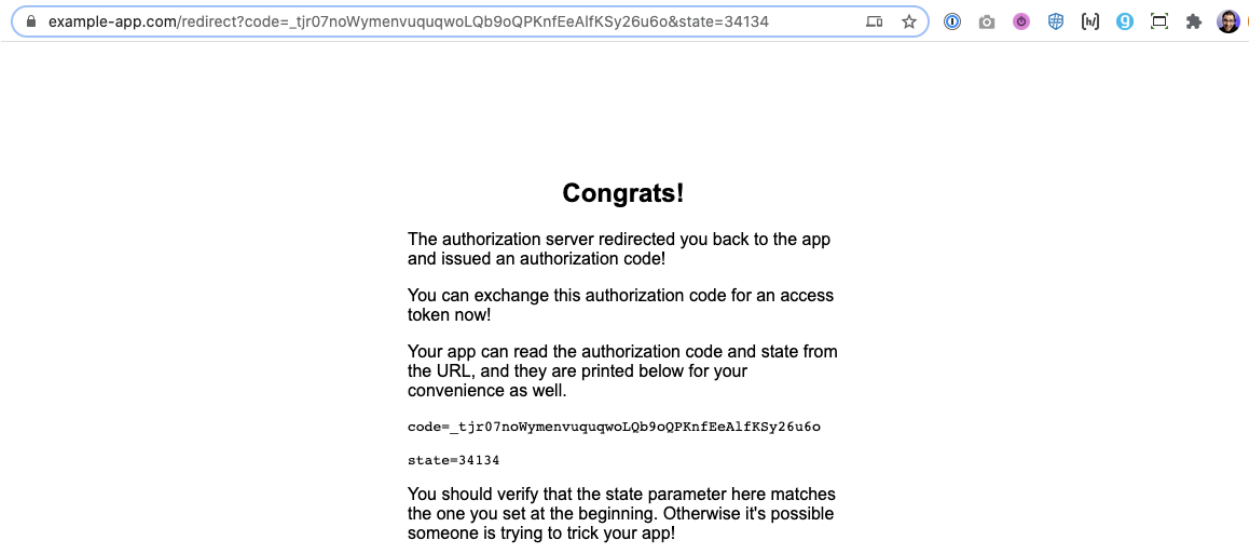


This allows your application to request refresh tokens and use them. Without this checked, the authorization server will not issue refresh tokens to this application.

Now you'll want to start a new OAuth flow and request a refresh token. Build the authorization URL like you did in the previous lesson, but this time also add the scope offline_access to the request.

```
https://dev-xxxxxx.okta.com/oauth2/default/v1/authorize?
  response_type=code&
  scope=offline_access+{YOUR_SCOPE}&
  client_id={YOUR_CLIENT_ID}&
  state={RANDOM_STRING}&
  redirect_uri=https://example-app.com/redirect&
  code_challenge={YOUR_CODE_CHALLENGE}&
  code_challenge_method=S256
```

Paste the completed URL into the Refresh Token exercise (https://oauth.school/exercise/refresh/) to check your work. This will double check that you've included the right scope in the request. Once that's confirmed, the "Log In" button will appear. Click that and you'll be taken to the authorization server, and since you're already logged in, you'll be redirected back immediately with an authorization code in the query string.



Now you'll need to make a POST request to the token endpoint to get an access token. This request is the same as before. Replace the placeholder values with your own.

```
curl -X POST https://dev-xxxxxx.okta.com/oauth2/default/v1/token \
  -d grant_type=authorization_code \
  -d redirect_uri=https://example-app.com/redirect \
  -d client_id={YOUR_CLIENT_ID} \
  -d client_secret={YOUR_CLIENT_SECRET} \
  -d code_verifier={YOUR_CODE_VERIFIER} \
  -d code={YOUR_AUTHORIZATION_CODE}
```

If everything worked, you'll get back a response that includes both an access token as well as a refresh token! Paste the entire token response (not just the access token) into the oauth.school website to check your work.

Great! You got a refresh token! Now use it to get a new access token, and paste the new response from the token endpoint below.

Refresh Token Response

```
{
  "token_type": "Bearer",
  ...
}
```

Use the refresh token to get a new access token, then paste the entire token response JSON here to check your work

Check Your Response Reset

If that succeeds, you'll be taken to the next step. Now you'll need to use the refresh token to get a new access token.

Make a POST request to the token endpoint again, but this time you'll use new parameters to make the refresh token request.

```
curl -X POST https://dev-xxxxxx.okta.com/oauth2/default/v1/token \
  -d grant_type=refresh_token \
  -d client_id={YOUR_CLIENT_ID} \
  -d client_secret={YOUR_CLIENT_SECRET} \
  -d refresh_token={YOUR_REFRESH_TOKEN}
```

You should get back a new access token response, which will look similar to the previous response except this will include a new access token. Paste the entire response into the field to check the result!

If that worked, you'll get a message saying you've completed the exercise!